

Message

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**From:** MORASH, MELANIE [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C67B1B2EBFDF4795AA598EDA825F0589-MMORASH]  
**Sent:** 11/30/2018 7:26:52 PM  
**To:** Holbrook, Holly [Holly.Holbrook@aecom.com]; Mora, Rebecca [Rebecca.Mora@aecom.com]; Shantal Der Boghosian [shantal.derboghosian@ngc.com]  
**CC:** Woo, Cynthia [cynthia.woo@aptim.com]  
**Subject:** RE: EPA Review of AECOM's Response to EPA Comments - 2017 Annual Groundwater Monitoring and Remedial Progress Report - TRW Microwave Site (Sunnyvale, CA)

Received, thank you.

Would you please also send a link to the report to my contractor, Cynthia Woo, copied above?

Thank you, and have a good weekend,

Melanie

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**From:** Holbrook, Holly <Holly.Holbrook@aecom.com>  
**Sent:** Thursday, November 29, 2018 3:48 PM  
**To:** MORASH, MELANIE <morash.melanie@epa.gov>; Mora, Rebecca <Rebecca.Mora@aecom.com>; Shantal Der Boghosian <shantal.derboghosian@ngc.com>  
**Subject:** RE: EPA Review of AECOM's Response to EPA Comments - 2017 Annual Groundwater Monitoring and Remedial Progress Report - TRW Microwave Site (Sunnyvale, CA)

Melanie,

Per your request below, here is the revised 2017 Annual Groundwater Monitoring and Remedial Progress Report.

Thank you,

**Holly Holbrook**  
Project Engineer, Environment  
AECOM  
D: 714.689.7215 M: 562.577.6058

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**From:** MORASH, MELANIE [mailto:morash.melanie@epa.gov]  
**Sent:** Wednesday, October 24, 2018 10:51 AM  
**To:** Mora, Rebecca; Shantal Der Boghosian  
**Cc:** Shaffer, Caleb; Levine, Herb; Holbrook, Holly; Woo, Cynthia; Perkins, James  
**Subject:** EPA Review of AECOM's Response to EPA Comments - 2017 Annual Groundwater Monitoring and Remedial Progress Report - TRW Microwave Site (Sunnyvale, CA)

Good morning, Rebecca,

Thank you for submitting a response-to-comments letter, responding to EPA's comments on AECOM's 2017 Annual Groundwater Monitoring and Remedial Progress Report for the TRW Microwave Site in Sunnyvale, CA. This e-mail communicates EPA's concurrence with your responses and planned revisions to the annual report. Please submit a revised report by November 30, 2018.

One note regarding your response to comment #6 – any proposed reduction in EAB monitoring will require EPA approval.

Sincerely,

Melanie

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Melanie Morash, Project Manager  
California Site Cleanup Section I, Superfund Division

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San Francisco, CA 94105

(415) 972-3050 [phone]  
[morash.melanie@epa.gov](mailto:morash.melanie@epa.gov)

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**From:** Mora, Rebecca [<mailto:Rebecca.Mora@aecom.com>]  
**Sent:** Tuesday, October 9, 2018 10:39 AM  
**To:** MORASH, MELANIE <[morash.melanie@epa.gov](mailto:morash.melanie@epa.gov)>; Shantal Der Boghosian <[shantal.derboghosian@ngc.com](mailto:shantal.derboghosian@ngc.com)>  
**Cc:** Shaffer, Caleb <[Shaffer.Caleb@epa.gov](mailto:Shaffer.Caleb@epa.gov)>; Levine, Herb <[Levine.Herb@epa.gov](mailto:Levine.Herb@epa.gov)>; Holbrook, Holly <[Holly.Holbrook@aecom.com](mailto:Holly.Holbrook@aecom.com)>  
**Subject:** RE: EPA Comments - 2017 Annual Groundwater Monitoring and Remedial Progress Report for the Former TRW Microwave Site

Hi Melanie,

Attached are our responses to EPA's comments on the 2017 Annual Groundwater Monitoring and Remedial Progress Report for the TRW Microwave Site. Per the responses, Figure 7 was modified and is also attached. Please let us know if you have any questions on the responses.

Once you review the responses, please let us know if they are approved and then we will submit a revised report.

Thank you very much!  
Rebecca

**Rebecca Mora**  
Senior Technical Leader/Project Manager, Environment  
D 714.689.7254  
[rebecca.mora@aecom.com](mailto:rebecca.mora@aecom.com)



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**From:** MORASH, MELANIE [mailto:morash.melanie@epa.gov]

**Sent:** Friday, August 24, 2018 8:03 AM

**To:** Mora, Rebecca; Shantal Der Boghosian

**Cc:** Shaffer, Caleb; Levine, Herb

**Subject:** EPA Comments - 2017 Annual Groundwater Monitoring and Remedial Progress Report for the Former TRW Microwave Site

Dear Shantal and Rebecca,

Thank you for submitting the *Annual Groundwater Monitoring and Remedial Progress Report, Former TRW Microwave Site, 825 Stewart Drive, Sunnyvale, California* (Report), prepared by AECOM Inc. (AECOM), dated May 3, 2018. The Report was prepared on behalf of Northrop Grumman Systems Corporation (Northrop). The Report presents the results of the groundwater monitoring program and summarizes the remedial activities conducted at the TRW Site in 2017.

**General Comments:**

EPA appreciates the groundwater monitoring work that Northrop and AECOM are conducting, in association with the long-term cleanup activities at the TRW Site. The Report's summary of the monitoring results of groundwater parameters indicates that remedial efforts continue to reduce contaminant mass at the TRW Site.

**Specific Comments:**

1. Section 3.1, Page 7, Second paragraph – Groundwater movement in groundwater Zone B2 is reported to the northwest based upon the potentiometric surface presented on Figure 7. However, the orientation of channelized flow is shown as trending north/northeast, which is consistent with the elevated levels of trichloroethene (TCE) in well T-10C. The groundwater flow direction mentioned in the text and as depicted on Figure 7 should be toward the north/northwest consistent with the trends of the preferred pathways and similar to that described for hydrostratigraphic units (HSUs) A and B1.
2. Section 3.1, Page 7, Third paragraph – Changes in groundwater elevations, as presented, have no relevance if such changes are an artifact of changes in the benchmark survey conducted in January 2018. Stated changes in the elevation of the groundwater surfaces should reflect only subsurface conditions to allow for correct comparison of historical elevations.
3. Section 3.2.1, Zone A – Presented historical concentration ranges do not reference the time range. EPA recommends adding the time range, similar to the discussion for Zone B1.
4. Section 3.2.2, Page 11, EAB Parameters, Last full sentence – Clarify punctuation in sentence to eliminate stating that the injection wells were injected with low dissolved oxygen concentrations.
5. Section 4.0, Page 13, Last bullet – Clarify the statement to indicate that the referred activities have resulted in destruction of [some (or much) of] TCE mass associated with the former TRW Site source area. What amount of mass volume is being referred to?
6. Section 4.0, Page 14, First bullet – The statement of *the existence on-site of a viable ongoing mechanism for ongoing contaminant mass reduction* appears to be contrary to the previous statement that *low TOC concentrations and microbial populations do not support annual monitoring*. Depleted organic carbon, very low DHC concentrations, detection of ethene only at trace concentrations, and increasing TCE concentrations at wells T-13A and T-14A indicate that mass reduction is not progressing. EPA understands that TCE concentrations in wells T-13A and T-14A are affected by the onsite migration of elevated TCE from an upgradient source. It is assumed that the intent of this bullet is to provide support of the proposed discontinuation of annual EAB monitoring. If so, EPA is open to discuss a reduction in annual EAB monitoring.

7. Section 4.0, Page 14, Recommendations, Fourth bullet – See EPA's August 24, 2018 set of technical comments regarding the proposed destruction of well T-9B. Impact of the two gravel layers within the well screen should be explored further.

**Figures and Tables Comments:**

1. Table 3 – Please clarify in notes the data qualifiers, F1, F2, and H.
2. Appendix C, Well T-9B results – Two data lines above Oct-17 are identified as Jan-17 and another Jan-17. Please clarify this data.

**Next Steps:**

Please review EPA's comments and submit a response-to-comments letter by October 31, 2018.

Sincerely,

Melanie

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Melanie Morash, Project Manager  
California Site Cleanup Section I, Superfund Division

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**References:**

AECOM, 2018, *Annual Groundwater Monitoring and Remedial Progress Report, Former TRW Microwave Site, 825 Stewart Drive, Sunnyvale, California Well Installation Report, Former TRW Microwave Site, 825 Stewart Drive, Sunnyvale, California*. May.

**From:** [Rebecca.Mora@aecom.com](mailto:Rebecca.Mora@aecom.com) [mailto:[Rebecca.Mora@aecom.com](mailto:Rebecca.Mora@aecom.com)]

**Sent:** Thursday, May 3, 2018 2:41 PM

**To:** MORASH, MELANIE <[morash.melanie@epa.gov](mailto:morash.melanie@epa.gov)>

**Subject:** Submittal of the 2017 Annual Groundwater Monitoring and Remedial Progress Report for the Former TRW Microwave Site

Rebecca Mora has sent you 1 file using AECOM's File Transfer System.

Rebecca Mora says:

On behalf of Northrop Grumman, this is an email from AECOM SendFiles for you to download the 2017 Annual Groundwater Monitoring and Remedial Progress Report for the Former TRW Microwave site (22MB file). This is not to be confused with the Well Installation Report sent earlier via email.

Please let us know if you have any issues downloading the report.

Thank you,  
Rebecca

This file will be available for download until 5/10/2018

<u>File</u>	<u>Description</u>	<u>Size</u>
<u>2018-0503-Microwave-Annual GWM Report Final.pdf</u>		22,321KB

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If you have any questions, please contact your project manager.